ABSTRACT

A method for reserving resources in a wireless network. The method is implemented in a base station by moving the function of predicting and reserving resources from the radio dependent layer to a radio independent layer. In accordance with our method resources currently being used and being demanded are monitored. The monitored data is then used by a reservation handler to predict future resource demand. The future resource demand is then estimated by the reservation handler for both radio dependent and radio independent layers. In estimating future resources we use a Wiener process model and incorporate instantaneous changes in the resource usage and demand so that call fluctuations are accounted for.